

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing Of Claims:

1-23. (Canceled)

24. (Previously Presented) A method for determining a concentration of an oxidizable gas component in a gas mixture using an electrochemical gas sensor including an electrochemical measuring cell having a measuring electrode and a reference electrode, the measuring electrode having a material that is one of not able to catalyze and not able to completely catalyze an establishment of a gas equilibrium, the electrochemical gas sensor further including at least one electrochemical pumping cell having at least one inner pumping electrode, the method comprising:

positioning the at least one inner pumping electrode and the measuring electrode in a measuring gas compartment;

coupling the at least one electrochemical pumping cell to a circuit configured to apply a pumping voltage to the at least one electrochemical pumping cell, so that the at least one electrochemical pumping cell pumps oxygen into or out of the measuring gas compartment;

applying a pumping voltage to the at least one electrochemical pumping cell via the circuit such that a partial pressure of oxygen in the measuring gas compartment corresponds to a lambda value of ≥ 1.3 ; and

determining the concentration of the oxidizable gas component.

25. (New) The method as recited in Claim 24, further comprising setting, via the at least one pumping cell, an approximately constant partial pressure of oxygen in the measuring gas compartment.

26. (New) The method as recited in Claim 24, further comprising positioning the measuring electrode and the at least one inner pumping electrode opposite each other in the measuring gas compartment.

27. (New) The method as recited in Claim 24, further comprising providing the measuring electrode with one of gold and a platinum-gold alloy.

28. (New) The method as recited in Claim 27, wherein a gold proportion in the platinum-gold alloy is 0.5 to 20 weight-%.

29. (New) The method as recited in Claim 27, wherein a gold proportion in the platinum-gold alloy is approximately 10 weight-%.

30. (New) The method as recited in Claim 28, further comprising providing the at least one inner pumping electrode with a material which is one of not able to catalyze and not completely able to catalyze the establishment of the gas equilibrium.
31. (New) The method as recited in Claim 30, further comprising providing the at least one inner pumping electrode with a platinum-gold alloy having a gold proportion of 0.1 to 3 weight-%.
32. (New) The method as recited in Claim 30, further comprising providing the at least one inner pumping electrode with a platinum-gold alloy having a gold proportion of 0.3 to 0.8 weight-%.
33. (New) The method as recited in Claim 24, further comprising providing the reference electrode with a catalytically active material that is able to catalyze the establishment of the gas equilibrium.
34. (New) The method as recited in Claim 33, wherein the catalytically active material is platinum.
35. (New) The method as recited in Claim 24, further comprising positioning the measuring gas compartment is positioned in one layer plane.